

The Spark Gap

MARCH 1986

Book XI Vol III

Official Journal of the Wellesley Amateur Radio Society

President's Message

by Tom Kinahan, N1CPE

Another month has flown by and the Novice class is going full guns, with a General class in the planning stages. Remember that the club station, W1TKZ, is open for use by members. This is especially good for Novices and others that don't have their own HF equipment. Just call an officer, listed in the Spark Gap with phone numbers, and make an arrangement to go down and operate.

The Amateur Radio exhibit at the Museum of Science that is slated for the 26th and 27th of April is going to be an excellent way of demonstrating Ham Radio to the public. If you are interested in helping with demos of Amateur Television, HF-DX, Packet radio, CW training, emergency communications, satellite communications, general Ham Radio, and Message Fair booths, drop me a line and I'll get you in touch with the person that is organizing that part. There will be a

special events station set up to promote the people visiting the exhibit to get on the air and do some third party communications. There will be nice QSL cards for contacting the station while a third party is operating. I am especially interested in ideas on the Message Fair to be held as part of the show as I am trying to organize that part.

Special thanks are due to Bill Hanlon, N1ADY, for converting the club SB-200 amplifier back to HF from 6 meters.

There have been some donations of equipment to the club recently and we're looking to sell some of it off. At the next club meeting, check out some of the equipment in boxes in the club room and talk to a club officer to determine if it's for sale and make a deal. Some bargains can be had on some really good stuff.

Elections

It is time to start thinking about who you would like to see running the club next year. Nomination of officers will be held this month at the March 20 meeting. Election Committee Chairman C.J. McDonald, WB1BUM, will take nominations by mail any time up to that meeting as well as during the meeting. If you would like to nominate anyone, including yourself, mail your nomination to C.J. McDonald, 48 Hale Street, Newton, Mass. 02164.

Hearabouts....

MORSE CODE PRACTICE

- 1st & 3rd Thursdays.
- 7 P.M.
- At Red Cross just before WARS meetings.
- Any speed you want.
- It's fun to practice in a group!

MEETINGS THIS MONTH:

March 6, 1986, at 7:30 p.m.

March 20, 1986, at 7:30 p.m.

211 Washington St., Wellesley

education corner



by Vern Valero, N1DSZ

The Novice Class is progressing quite nicely. The class now has been given the entire Morse Code alphabet. All that remains for the code now is to practice, practice and practice.

The ARRL 'Tune In The World' books finally arrived. The package includes a Morse Code tape. That tape was sorely needed. Now it will be much easier for everyone to practice on their own.

Art (K1ENP) presented Ohm's Law. That was a real treat, since he is a professional educator by trade. Art also gave a repeater demo with his hand-held. Rita (N1DDI) gave the class a little pep talk through the repeater.

Tom (KX1H) presented Propagation the night before he propagated himself to sunny Florida. His parting message about the sunspot situation was: 'Things can only get better now!'

Larry (W1MWF) taught AC and measurements. He brought a scope and about a half dozen meters. This was great for the class because they could actually see waveforms on the screen.

Tom (N1CPE) explained all about tubes, transistors, and oscillators. This was followed by a presentation on Packet Radio.

Many thanks to the above teachers and others who have given support to this Novice Class. We have some very enthusiastic students who will benefit by being in the hobby.

OFFICIAL BULLETIN

Number 8, dated January 23, 1986:

FCC has released a Report and Order in PR Docket 85-105 allowing automatic control for digital operation on frequencies 50 MHz and above. Automatic control privileges continue for repeater, auxiliary and beacon operation. The new privileges are effective

March 1986. There is a dark lining in this silver cloud. A major goal in the securing of automatic control privileges for digital operation at 50 MHz and above had been the facilitation of packet radio data transfer, computer to computer communication and packet switching systems. Such operation has continued to be hampered by the requirement that a control operator be present when third party traffic is handled. FCC has provided no relief in this quarter in its Report and Order in PR Docket 85-105. FCC found that neither the speed with which a message is transmitted, nor the operating mode, justified any deviation from the rule requiring that the control operator of an Amateur station be present at the control point whenever a station engages in third party traffic. Under these circumstances, the expanded automatic control privileges gained through 85-105 may be a hollow victory. ARRL response to this apparent setback for packet radio is scheduled for discussion at the January ARRL board meeting.

OFFICERS

PRESIDENT:

Tom Kinahan, N1CPE, 653-0641

VICE PRESIDENT:

Rita Baker, N1DDI, 481-0863

RECORDING SECRETARY:

Nels Anderson, K1UR, 872-5259

CORRESPONDING SECRETARY:

Arthur Thompson, K1ENP, 235-5509

TREASURER:

C.J. McDonald, WB1BUM, 332-6091

FUND RAISING:

Thomas Burton, KX1H, 235-6353

OPERATING ACTIVITIES:

Allan Bacon, K1BA, 749-4382

EDUCATION CHAIRMAN:

Vern Valero, N1DSZ, 533-6822

STATION MANAGER:

Bob Drapeau, K1IK, 883-1132

REPEATER COMMITTEE:

Tom Kinahan, N1CPE, 653-0641

The Spark Gap

Official Journal of the Wellesley Amateur Radio Society



EDITOR:

BELLS ANDERSON, KING
92 GILBOPE DRIVE
FRAMINGHAM, MASS. 01701
617-5239

THE "SPARK GAP" IS THE MONTHLY PUBLICATION OF THE WELLESLEY AMATEUR RADIO SOCIETY. ITS PRIMARY PURPOSE IS TO KEEP ITS MEMBERS ABREAST OF CURRENT HAPPENINGS, FCC RULES AND REGULATIONS CHANGES AND TO LIST EQUIPMENT OFFERED FOR SALE OR TRADE, BY MEMBERS. MEMBERS ARE ENCOURAGED TO CONTRIBUTE TO THE "SPARK GAP" AND MAY SEND THEIR ARTICLES TO THE EDITOR. ITEMS PRINTED IN THE "SPARK GAP" MAY BE REPRINTED BY OTHER AMATEUR RADIO PUBLICATIONS PROVIDED THE AUTHOR AND THE "SPARK GAP" ARE GIVEN CREDIT.

THE WELLESLEY AMATEUR RADIO SOCIETY IS A NON-PROFIT ORGANIZATION DEDICATED TO THE PROMOTION OF AMATEUR RADIO THROUGH INSTRUCTION, FELLOWSHIP, DEMONSTRATION AND ENCOURAGEMENT OF PARTICIPATION. ANNUAL MEMBERSHIP IN THE SOCIETY IS \$10.00. THE CLUB YEAR RUNS FROM SEPTEMBER 1 TO AUGUST 31. AMATEUR VOICE AND GENERAL CLASSES ARE CONDUCTED REGULARLY AT NO COST. TO ENROLL IN A CLASS, OR OBTAIN INFORMATION ABOUT THE SOCIETY IN GENERAL, WRITE:

THE WELLESLEY AMATEUR RADIO SOCIETY
211 WASHINGTON STREET
WELLESLEY HILLS, MASS. 02181



MINUTES

Meeting of January 2, 1986:

The meeting was called to order at 7:37 p.m. by the President, NICPE. The Treasurer, WB1BUM, reported the current treasury balance.

Education Chairman N1DSZ reported the Novice Class would begin January 6.

Following roll call President Tom Kinahan announced results of the VHF Contest. W1TKZ was number 6 in U.S.A. from Vermont in last fall's VHF contest--see January 1986 QST for details.

Program chairman KAIENP announced a January 16 visit to Continental Cablevision headend facility.

Treasurer advised a dues reminder to accompany next Spark Gap. Also we are replacing our present liability insurance carrier.

Meeting adjourned at 8:28 p.m.

Meeting of February 6, 1986:

The meeting was called to order at 7:45 p.m. by President NICPE with 18 members and guests present. Secretary's and Treasurer's reports read and accepted.

NICPE reported on the Council of Eastern Massachusetts Amateur Radio Clubs exhibit at the Science Museum in April--KAI SM.

KAIENP spoke regarding the WARS-2 meter repeater as a CD backup repeater, having emergency power available. President Tom Kinahan to investigate and report. Moved and accepted that CD net control be advised that this request be agreed to subject to WARS prior commitment to the Newton Wellesley Hospital and Wellesley Red Cross.

Moved and accepted to purchase liability insurance at increased premium and with \$1 million limit.

WB1BUM requested support for the Charles River Run.

Copies of public service telephone numbers at Newton Wellesley Hospital distributed.

KT1K will be giving a program at the next meeting on traffic handling.

N1DSZ announced a Novice Class of 15+ with General Class to follow.

Meeting adjourned at 8:52 p.m.

Thanks to Roger Smith, W1EOA, for taking the minutes of these meetings.

WARS NET

For all of you who like to check in our our Sunday night net, please take notice. The net on 147.03 is going to be held at 8:00 p.m. on Wednesday nights. We are changing to Wednesday night for the convenience of some of our members.

Please try to join us!

ELECTRONICS EXCHANGE

For Free: Eico 424 Oscilloscope.
Free to a good home. Call Dwight
Williams, KAIKKS, at 485-2348.

Hereabouts...

The club needs an up to date Call-book. Anyone out there have a 1985 that they don't need? Please bring it to the next meeting.

Hearabouts....

Whenever you renew your ARRL membership be sure to do it through the club. To do this, send your completed membership form to the Wellesley ARS at the club address or bring it to the next meeting, and make your check out payable to the Wellesley Amateur Radio Society. We will then make sure that the League gets your application and dues. This way, the club can make \$2 from every member who renews this way.

**education
corner**



ADVANCED CLASS

by Vern Valero, N1DSZ

OK, so now you've been a General for a little while and want to learn some more about Amateur Radio theory and practice. Did you know that:

--- There is no code test for Advanced. (The morse code requirement is the same as General, 13 WPM)

--- The 'Advanced' theory is just an extension of 'General' theory.

--- You don't have to be a genius to pass the Advanced Exam. (Just put a little time and thought into it.)

--- Advanced license holders get more voice privileges in the HF region, and more DX opportunities.

--- You have to pass. Advanced to get Extra.

--- Passing the Advanced Exam will make you feel good about yourself.

So if you are thinking about going for Advanced please consider taking WARS Advanced Class in the Fall. Don't hesitate to call me on the telephone or the WARS repeater.

WARS members who have a particularly strong interest in certain technical topics should consider helping with the teaching job. You don't have to have an Advanced or Extra license. Just have some basic knowledge and be willing to explain what you know. Working together I believe that we will be able to help the students understand the theory and expand their enjoyment of the hobby.

Vern Valero (N1DSZ)
533-6822

ANNOUNCEMENT

March 13: S.E. Mass. ARA, SEMARA Club House, 54 Donald, South Dartmouth, MA 02748. Contact William Pierce, 666 Cottage Street, New Bedford, MA.

March 19: MIT, 77 Mass. Avenue, Room 1-134, Cambridge, at 7:00 p.m. Novice through Extra. Contact Ron Hoffman, 646-1641, at least two days in advance.

March 29: WPI Wireless Association, Room 109, Higgins Lab, Mechanical Engineering Building, Worcester, MA 01609. Contact Joseph Fitzgerald, P.O. Box 1873, Worcester, MA 01609. Walk ins accepted.

April 5: Quaboag Valley Repeater, New Braintree Town Hall, New Braintree, MA. 01531. Contact Stephen Craven, P.O. Box 5, Gilbertville, MA 01031. Walk ins accepted.

WESTLINKREPORT

THE AMATEUR RADIO NEWSLETTER

The recorded version of the Westlink Report is now available in our area. To hear a recording of the latest Amateur Radio news, call 449-2226.

Hamnews

Right now, if you pass a code test on your way to qualifying for a higher class of license, but you don't pass the "written," you're given credit for that code "pass" for up to a year--so next time you sit for the upgrade, you need only pass the written exam and you're in. FCC rules allow for this, but they don't allow credit for having passed a written exam unless it results in a new license or an upgrade. Robert Scupp, WBSYYX, petitioned FCC to authorize that credit be given for written exam elements, just as it is for code. FCC has responded with a Notice of Proposed Rulemaking in PR Docket 86-63, proposed to do just that.

FCC explains that it had tested code aptitude first for reasons of administrative convenience. However, under the volunteer examination system, there are instances where volunteer examiners may not wish to do so--especially if an unlicensed applicant is shooting for a license class higher than Novice, or where a licensed applicant wishing to upgrade seeks to move up more than one notch at a time. The petitioner expressed particular concern about applicants seeking to further upgrade while awaiting FCC processing of a previously upgraded license.

Comments in this proceeding may be filed on or before April 30, 1986; reply comments are to be in FCC hands on or before May 31, 1986. A copy of the Notice of Proposed Rule Making in PR Docket 86-63 may be had from ARRL HQ for an SASE bearing 39 cents postage.

ARRL Letter, February 13, 1986

The U.S. Amateur Radio population reached an all time record of 413,642 operators as 1985 came to a close.

The breakdown by license class shows Generals most numerous with 117,082, followed by Advanced (97,781), Technician (83,387), Novice

(77,087) and Extra (38,305).

California has more than twice as many hams as any other state (57,151), with New York (25,897), Florida (24,675), and Texas (24,444) in a close race for second.

The biggest problem continues to be the Novice which is the only license class that is failing to grow. At the end of the FCC's fiscal 1983, there were 86,781 Novice licenses in force; a year later that had dropped to 80,461. Now, the Novice ranks had dwindled by almost another 3400, to 77,087. The continued growth of the higher classes demonstrates the VEC program is working well; the failure is in recruiting new blood. Thanks W9JUV.

Westlink Report, January 24, 1986

The FCC has amended Part 97 to permit automatic control of digital Amateur communications on all frequencies above 50 MHz.

Following the suggestions of the ARRL, the Commission acted on January 14 to approve the terms of PR Docket 85-105. This change will permit digipeaters and other digital store and forward devices to operate in an untended mode.

No effective date has been published. Thanks W3BE.

Westlink Report, January 24, 1986

CHUCKLE KORNLER

from MSN Newsletter, Coon Rapids, MN via ARNS

Have you been amused and confused by the electron hole theory? Do charges, valence bonds, and the 3/2 power law make you nervous?

A startling discovery by Mark Persons invalidates all of this claptrap in a recent issue of Radio World! Mark reveals how electronic equipment really works.

For many years, young electronic technicians have been taught the "hole" theory of electronics. This theory explains how electrons move

along conductors and semiconductors. The explanation has been good enough to satisfy or keep at bay anyone who might otherwise question the theory.

However, after a number of years working in the broadcast industry, I have come to realize the "hole" explanation may not be correct.

My theory, which has been proven time and again by personal observation, is that electronics works on smoke. Yes, that's right. I recently learned that every manufacturer encapsulates a certain amount of smoke in every electronic component he builds. The smoke is what does the work.

You have probably noticed that a component will quit working when the smoke leaks out. I've documented this many times and it conclusively proves my theory. My theory sure beats the "hole" theory. I've never seen holes in a wire, and why don't electrons pour out of the end of the wire, if the wire is broken?

I say Mark Persons is right. I've seen smoke many times, but I've never seen an electron. Hats off to this pioneer whose discovery will be celebrated each April in years to come!

education corner



GENERAL CLASS

The General Class is scheduled to begin on April 7. This is an excellent opportunity to upgrade together in a group. The class will include both Morse Code and general theory.

DATES: April 7 to June 23 (Mondays)

TIME: 7 PM to 9:30 PM

PLACE: ???????

Unfortunately we do not have a location to hold the class yet. The Red Cross classroom is not available this Spring (except for Friday nights). So if someone has any suggestions, please pass them on. THERE

WILL BE A GENERAL CLASS THIS SPRING. Several people has expressed strong interest, so we're going to make a go of it.

It would also be great if some WARS members would be willing to phone or write the Novices of the club to invite and encourage them to take the class. (Phone expenses are reimbursable).

This is another golden opportunity for the membership to share our knowledge with others. In other words, please volunteer to teach a night! Georges (K1LQO) has admitted that preparing to teach the Novice Class has given him the opportunity to dig deeper and learn more. Good! Show! Any time that you put into teaching a class really is appreciated and gives you a feeling of satisfaction and accomplishment.

The proposed schedule is:

APRIL	SUBJECT
7	Rules and Regs
14	--Patriots Day Holiday--
21	Electrical Principles 1
28	Electrical Principles 2
MAY	
5	Voice Operating Techniques
12	Circuits 1
19	Circuits 2
26	--Memorial Day Holiday--
JUNE	
2	Emissions and Signals
9	Propagation
16	Antennas and Feedlines
23	Amateur Radio Practice

Please note that the above schedule is tentative. If you want to teach a particular subject but can't make in on the above date, then we will shift topics around if there are no dependancies on a previous subject.

So there we are! Thanks so much for your help. The cooperation and teamwork that club members has shown in the past is terrific. Let's work together again and upgrade a group to General!

Vern Valero (N1DSZ)
533-6822

WELLESLEY A.R.S. MEMBERS 2/27/86

ARNIE ADELMAN, 11 WALNUT ST., BERLIN, MA 01503
 MIKE ADLERSTEIN, 24 ROROLINK ROAD, WELLESLEY, MA 02121
 WELS ANDERSON, 92 BISHOP DRIVE, FRAMINGHAM, MA 01701
 JOHN H. ANTES, 11 OLD FARM CIRCLE, WAYLAND, MA 01778
 ALLAN HAGON, 73 SCHOOL STREET, WINGHAM, MA 02003
 RITA A. BAKER, 34 CLIFFORD ROAD, SOUTHBORO, MA 01772
 WILLIAM BAKER, 34 CLIFFORD ROAD, SOUTHBORO, MA 01772
 RICHARD BLAHA, 2 HARWOOD CIRCLE, NATICK, MA 01760
 DWIGHT BLAHA, 2 HARWOOD CIRCLE, NATICK, MA 01760
 PETER M. BRADLEY, 5 GRANGER ROAD, WESTBORO, MA 01581
 DENNIS J. BREVIK, 250 MILLHAM STREET, MARLBORO, MA 01752
 WARREN BREWSTER, 1 KEANE TERRACE, NATICK, MA 01760
 THOMAS M. BURTON, 61 WHITTIER ROAD, WELLESLEY, MA 02181
 BRIAN CARAMANICA, 90 FISKE AVENUE, WALTHAM, MA 02154
 ROBERT G. CHISHOLM, 38 GLEN STREET, NATICK, MA 01760
 KING S. CHOY, 197 CHISWICK ROAD, BRIGHTON, MA 02135
 MORTON D. COHAN, 16 ORIOLE ROAD, MEDFIELD, MA 02052
 ROY CROSSMAN, 9 LEIGHTON STREET, NATICK, MA 01760
 VALENTINE J. DESCAMPS, 20 SHAW ROAD, WELLESLEY, MA 02181
 BOB DOWNER, 99 PHILIP STREET, MEDFIELD, MA 02052
 BOB DRAPEAU, 39 STEVEN ROAD, BELLINGHAM, MA 02019
 JON C. FREEMAN, 95 ANDURON ROAD, APT 602, WAKEFIELD, MA 01880
 EDWARD E. GALLAGHER, 87 BEAUFORT AVENUE, NEEDHAM, MA 02102
 GEORGE J. GOLDIN, 14 LEWELLYN ROAD, WEST NEWTON, MA 02165
 DAVID J. GOLDMAN, 26 PRISCILLA CIRCLE, WELLESLEY, MA 02181
 ALBERT GRAF, 391 WORCESTER ROAD, WELLESLEY, MA 02181
 NATHAN A. HALLENSTEIN, 5 BLUEBIRD ROAD, WELLESLEY, MA 02181
 SALLY HANLON, 49 VINE STREET, WRENTHAM, MA 02093
 LAURA HANLON, 49 VINE STREET, WRENTHAM, MA 02093
 WILLIAM HANLON, 49 VINE STREET, WRENTHAM, MA 02093
 JIM HATHERLEY, 46 HORSON STREET, BRIGHTON, MA 02135
 MARC HEBERT, 11 REDFIELD CIRCLE, FERRY, MA 02038
 MADELINE HEINE, 449 WORCESTER STREET, WELLESLEY, MA 02181
 LARRY HEINE, 449 WORCESTER STREET, WELLESLEY, MA 02181
 GARY IRVING, 48 CHESLEY ROAD, NEWTON, MA 02159
 GEORGE L. JOUPERT, 37 WILLIAM STREET, WATERTOWN, MA 02172
 KEVIN KELLY, P.O. BOX 308, CHARLESTOWN, MA 02129
 THOMAS KINAHAN, JR., 27 VILLAGE BROOK LANE, NATICK, MA 01760
 GEORGE KNIGHT, 444 N. PAULA DR., APT. 327, DUNEDIN, FL 33528
 LAWRENCE LEBLANC, 15 NORFOLK STREET, NEEDHAM, MA 02102
 WALTER E. LEFK, 22 PRISCILLA CIRCLE, WELLESLEY, MA 02181
 THEODORE LEVINE, 5133-C LAKEFRONT BLVD, DELRAY BEACH, FL 33405
 CARLISLE P. LEVINE, 1921 COMM. AVE., AUBURNDALE, MA 02156
 GREG LIVINGSTON, 27 MORSES POND ROAD, WELLESLEY, MA 02181
 FRANK MACKENZIE-LAMB, 46 WALNUT STREET, NATICK, MA 01760
 RICHARD W. MAGNANTI, 80 KINGSBURY STREET, WELLESLEY, MA 02181
 HENRY J. MC DADE, 194 WINSLOW ROAD, WARAN, MA 02162
 DENNIS T. MC DONALD, P.O. BOX 232, ROADTOWN, TORTOLA, RVI
 CHARLES MC DONALD, 48 HALF STREET, NEWTON, MA 02164
 KENNETH W. MC NAIR, 105 BLAKE STREET, NEEDHAM, MA 02102
 DAVID S. MCLELLAN, 77 CHESTNUT STREET, WESTON, MA 02193
 PAUL MCROE, JR., 2269 COMMONWEALTH AVE., AUBURNDALE, MA 02166
 JAMES O'CONNOR, 24 PRINCE STREET, NEEDHAM, MA 02192
 HANK OSTROWSKI, P.O. BOX 1088, SIMPSONVILLE, S.C. 29681
 RICHARD PARET, P.O. BOX 171, GREEN HARBOR, MA 02041
 KATHY PATE, 23 BROOKFIELD ROAD, DOVER, MA 02030
 AMERICO PROCOPIO, 17 PEACEDALE CIRCLE, NEEDHAM, MA 02192
 DANIEL A. QUINTILIANI, 10 ROCKLAND STREET, NEWTON, MA 02158
 THOMAS RILEY, 50 HALF STREET, NEWTON, MA 02164
 VERN ROBERTSON, 42 FISHER STREET, MEDWAY, MA 02053
 RICHARD RUGGIERO, 11 AVON STREET, WINGHAM, MA 02003
 JOHN H. SANGSTER, 9 BELLEVUE ROAD, WELLESLEY HILLS, MA 02181
 JOHN SCHUB, 21 RUTLAND STREET, WATERTOWN, MA 02172
 DAVID SMITH, 35 KINGSWOOD ROAD, AUBURNDALE, MA 02156
 ROGER P. SMITH, 7 PERKLEY ROAD, WELLESLEY, MA 02181
 JOHN E. STACY, 76 SHERBURN CIRCLE, WESTON, MA 02193
 CHARLES W. STEVENS, 249 MAIN STREET, COCHITUADE, MA 01778
 FRANKLIN STUART, 145 PINCHNEY STREET #323, ROSTON, MA 02114
 JOHN H. TAYLOR, 11 GORDON ROAD, NEEDHAM, MA 02192
 ARTHUR THOMPSON, 44 WINDEMERE, WELLESLEY, MA 02181
 ERIK J. THOMPSON, 22 LOOKOUT AVENUE, NATICK, MA 01760
 RALPH W. VACCA, 45 THORNTON ROAD, WALTHAM, MA 02154
 VERN VALEPO, 1082 POND STREET, FRANKLIN, MA 02038
 GEORGES VERIE, 25 BLAKE STREET, NEEDHAM, MA 02192
 JED W. WEAFF, 22 LEDGETREE ROAD, MEDFIELD, MA 02052
 RICHARD WEISSEL, 39 MAC ARTHUR ROAD, NATICK, MA 01760
 MIKE WEISSEL, 39 MAC ARTHUR ROAD, NATICK, MA 01760
 GARY WEISSEL, 39 MAC ARTHUR ROAD, NATICK, MA 01760
 VIRGINIA F. WILLIAMS, 258 SUDBURY STREET, MARLBORO, MA 01752
 DWIGHT H. WILLIAMS, 258 SUDBURY STREET, MARLBORO, MA 01752

A WIGCI 939-2689
 E KIEB 235-1130
 F KIHU 872-5250
 A KPIER 358-2571
 F KIPA 740-4392
 T KIDDI 481-0863
 " 481-0863
 T KALLOO 655-1850
 " KALLOP 655-1850
 F KIDBY 366-2511
 F KZTD 460-0050
 " KAIKHS 653-1487
 F KYIH 235-6353
 " KRIALT 800-8014
 " KAIKHT 655-6159
 KAIPIH 254-4675
 A KAIH 350-7070
 653-2903
 " KAIHEM
 T KICNY 350-5023
 F KTIK 883-1132
 " 216-0091
 A KRIECZ 440-1712
 " KAILON 224-6110
 G KJYSH 235-6250
 A KINOP 235-1539
 F KIJMA 235-8572
 394-9056
 " KAIKAC 394-9056
 A KIDBY 394-9056
 A KAITRY 254-6042
 A KPIEDF 603-434-8971
 " KRIECX
 " KRIECW
 T KAIHDR 960-9487
 T KAIJIP 974-4050
 F KAIYHV 242-0341
 G KICPF 653-0641
 " KPAFLI
 A KAIMWF 444-2935
 G KITYY 237-9289
 G KRIEFC
 F KRIECK 244-3818
 WA2EHV 235-3303
 " 655-8775
 F AKII 235-6371
 A KJLMH 527-4260
 " KRIERW
 T KRIHRM 332-6001
 KIDF7 444-5317
 G KIDFP 804-3102
 T KAILDV 965-7205
 A KIMIC 444-1036
 A VF3CGL 803-233-0200
 T KAIJLO 837-6423
 G KAIHYR
 G KICZT 444-0272
 " KAIKLP 332-0215
 " KRIHRM 244-3239
 T KIEGF 533-7915
 T KAIJLM 655-1928
 E K3IKG 235-8753
 A KRIPIV 926-9504
 F KIRSO 965-2463
 F KIFOA 235-6230
 A KIKIM 235-1773
 KAIHVV 653-8421
 T KAIWMP 720-1611
 A KICPF
 A KAIENP 235-5509
 T KIOGF 655-7048
 F KIKF 800-0490
 G KIDS7
 " KALLOO 444-0405
 G3VVP 350-6896
 A KAIHRV 655-2366
 G KAIKWH 655-2366
 G KAIJWF 655-2366
 " KAIKKT 485-2348
 " KAIKKS 485-2348